

PROJECT GALILEO: COMPLETING EUROPA, PREPARING FOR IO

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Galileo has completed the Europa leg of the Galileo Europa Mission, and is now pumping down the apoapse in each succeeding orbit in preparations for the Io phase. Including three encounters earlier in the primary mission, the total of ten close passes by Europa have provided a wealth of interesting and provocative information about this intriguing body. The results presented include new and exciting information about Europa's interactions with Jupiter's magnetosphere, its interior structure, and its tantalizing surface features which strongly hint at a watery subsurface layer. Additional data concerning Callisto, and its own outlook for a subsurface ocean are also presented.

In addition the engineering aspects of operating the spacecraft during the past year are explored, as well as a brief examination of what will be the challenges to prepare for the Io encounters. The steadily increasing radiation dosage that the spacecraft is experiencing is well beyond the original design parameters, and is contributing to a number of spacecraft problems and concerns. The ability of the flight team to analyze and solve these problems, even at the reduced staffing levels of an extended mission, is a testament to their tenacity and loyalty to the mission. The engineering data being generated by these continuing radiation induced anomalies will prove invaluable to designers of future spacecraft to Jupiter and its satellites. The lessons learned during this arduous process are presented.